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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,348	01/08/2001	Guojin Liang	60012-0011	8149
20575	7590	06/29/2005	EXAMINER	
MARGER JOHNSON & MCCOLLOM, P.C. 1030 SW MORRISON STREET PORTLAND, OR 97205			WILLIAMS, LAWRENCE B	
			ART UNIT	PAPER NUMBER
			2638	
DATE MAILED: 06/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,348

Applicant(s)

LIANG, GUOJIN

Examiner

Lawrence B Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on remarks filed on 01 MMarch 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

2. Claims 1-12, 15-34 are provisionally rejected under the judicially created doctrine of double patenting over claims 8, 10, 12-15, 17-25 of copending Application No. 09/757,405 as cited below. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

(1) With regard to claim 1, claim 8 of copending application discloses a multi-link receiver, which inherently comprises the latching mechanism and adjustable delay element disclosed in claim 1 of the instant application for performing the functions of the multi-link receiving mechanism of claim 8 of copending Application No. 09/757/348. Claim 1 of the instant application discloses a receiver, comprising: a latching mechanism, coupled to receive a data stream comprising a plurality of data units, each data unit occupying a data period, said latching mechanism latching said data units in response to latching control signals (lines 2-6,

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claim 5); a signal generator coupled to receive a reference signal, said signal generator generating said latching control signals based upon said reference signal (lines 2-11); and an adjustable delay element (variable delay, lines 4, 9) coupled to receive a clock signal and delaying said clock signal by a variable delay to derive said reference signal, said reference signal so derived causing said signal generator to generate said latching control signals such that each of said latching control signals coincides approximately with a midpoint of a data period (claim 8).

Claim 1 does not disclose the second receiver, however, **it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before.** In re Karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (bd. App. 1969); **the omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art.**

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

(2) With regard to claim 2, claim 5 also discloses wherein the clock signal is not necessarily aligned with the data stream (lines 14-15). The synchronization of the clock signal with the data would be an inherent feature.

(3) With regard to claim 3, claim 8 also discloses wherein said variable delay of said adjustable delay element is greater than or equal to said data period.

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(4) With regard to claim 4, claim 10 teaches wherein there is no more than one of said latching control signals per data period (line 3).

(5) With regard to claim 5, claim 15 discloses a delay control mechanism, said delay control mechanism adjusting said variable delay imposed by said adjustable delay element to alter said reference signal, said reference signal being so altered to cause said signal generator to generate said latching control signals such that each of said latching control signals coincides more closely with a midpoint of a data period.

(6) With regard to claim 6, claim 17 also discloses wherein said delay control mechanism alters said reference signal by causing said reference signal to coincide more closely with a midpoint of a data period.

(7) With regard to claims 7, claim 18 discloses wherein at least one of said latching control signals is delayed relative to said reference signal by substantially a data period.

(8) With regard to claim 8, claim 17 also discloses wherein each of said latching control signals is temporally separated from another latching control signal by substantially one data period.

(9) With regard to claim 9, claim 25 wherein said generator comprises a delay lock loop.

(10) With regard to claim 10, claim 19 discloses wherein said delay control mechanism comprises: a detection mechanism, said detection mechanism receiving an indication of how closely each of said latching control signals coincides with a midpoint of a data period, and providing an adjustment signal to adjust said variable delay of said adjustable delay element to alter said reference signal to cause each of said latching control signals to coincide more closely with a midpoint of a data period.

(11) With regard to claim 11, claim 21 discloses wherein said delay control mechanism further comprises: a fixed delay element coupled to receive at least one of said latching control signals and providing a delayed latching signal; and a latching component coupled to receive said data stream, said latching component latching one of said data units in said data stream in response to said delayed latching signal.

(12) With regard to claim 12, claim 19 discloses wherein said detection mechanism receives said one data unit from said latching component, and compares said one data unit with a plurality of data units received from said latching mechanism to determine how closely each of said latching control signals coincides with a midpoint of a data period.

(13) With regard to claim 15, claim 20 discloses wherein said detection mechanism comprises a phase detector.

(14) With regard to claim 16, claim 25 discloses wherein said signal generator comprises a delay locked loop.

(15) With regard to claim 17, claim 12 discloses wherein there is no more than one of said latching control signals for each of said data periods.

(16) With regard to claim 18, claim 17 also discloses wherein said reference signal coincides approximately with a midpoint of a data period.

(17) With regard to claims 19, claim 18 discloses wherein at least one of said latching control signals is delayed relative to said reference signal by substantially a data period.

(18) With regard to claim 20, claim 17 also discloses wherein each of said latching control signals is temporally separated from another latching control signal by substantially one data period.

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- (19) With regard to claim 21, claim 21 inherits all limitations of claim 1 above.
- (20) With regard to claim 22, claim 22 inherits all limitations of claims 17 and 21 above.
- (21) With regard to claim 23, claim 23 inherits all limitations of claims 18 and 21 above.
- (22) With regard to claim 24, claim 24 inherits all limitations of claims 14 and 21 above.
- (23) With regard to claim 25, claim 25 inherits all limitations of claims 19 and 23 above.
- (24) With regard to claim 26, claim 26 inherits all limitations of claim 20 and 25 above.
- (25) With regard to claim 27, a delay lock loop would be an inherent feature of the signal generator to provide zero propagation delay, low-clock skew between output clock signals throughout the mechanism.
- (26) With regard to claim 28, claim 28 inherits all limitations of claims 1 and 21 above.
- (27) With regard to claim 29, claim 10 discloses wherein said reference signal is not aligned with said data stream.
- (28) With regard to claim 30, claim 30 inherits all limitations of claims 2 and claim 28 above.
- (29) With regard to claim 31, claim 17 also discloses wherein said reference signal coincides approximately with a midpoint of a data period.
- (30) With regard to claim 32, claim 32 inherits all limitations of claims 24 and 31 above.
- (31) With regard to claim 33, claim 33 inherits all limitations of claims 25 and 31 above.
- (32) With regard to claim 34, claim 34 inherits all limitations of claims 26 and 31 above.

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3. Claims 13, 14 are provisionally rejected under the judicially created doctrine of double patenting over claims 23, 24 of copending Application No. 09/757,405. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claim 23 of copending application discloses a multi-link receiver which inherently comprises the latching mechanism and adjustable delay element disclosed in claim 1 of the instant application for performing the functions of the multi-link receiving mechanism of claim 23 of copending Application No. 09/757/348. Claim 1 of the instant application discloses a receiver, comprising: a latching mechanism, coupled to receive a data stream comprising a plurality of data units, each data unit occupying a data period, said latching mechanism latching said data units in response to latching control signals (lines 2-6, claim 22); a signal generator coupled to receive a reference signal, said signal generator generating said latching control signals based upon said reference signal (lines 2-11); and an adjustable delay element (variable delay, lines 4, 9) coupled to receive a clock signal and delaying said clock signal by a variable delay to derive said reference signal, said reference signal so derived causing said signal generator to generate said latching control signals such that each of said latching control signals coincides approximately with a midpoint of a data period (lines 25-26).

Claim 23 also discloses wherein said fixed delay element has a fixed delay greater than said data period.

Claim 13 does not disclose the second receiver, however, **it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before.** In re Karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (bd. App. 1969); **the omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art.**

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

(2) With regard to claim 14, claim 24 discloses wherein said fixed delay is approximately $(X+.5)$ times said data period where X is an integer greater than or equal to 1.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.) Harrison discloses in US Patent 6,173,432 B1 Method And Apparatus For Generating A Sequence Of Clock Signals.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw

June 27, 2005



KENNETH VANDERPUYE
PRIMARY EXAMINER